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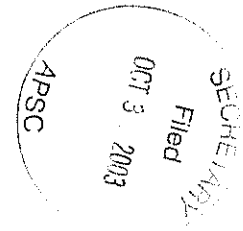
October 31, 2003

BY HAND DELIVERY

Mr. Walter Thomas
Secretary
Alabama Public Service Commission
RSA Union Building
8th Floor
100 N. Union Street
Montgomery, Alabama 36104



Re: Petition For A Declaratory Order Regarding Classification Of IP Telephony Service, Docket No. 29016

Dear Mr. Thomas:

Enclosed herewith for filing is the original, along with 10 copies of the comments of Vonage Holdings Corporation. Thank you

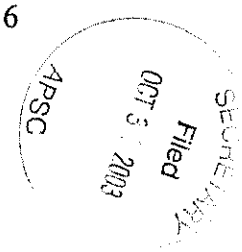
Very truly yours,

Robin G. Laurie

RGL:amc
Enclosure

Before the
ALABAMA PUBLIC SERVICE COMMISSION

Petition for Declaratory Order Regarding Classification of IP Telephony Service	)))	Docket No. 29016



COMMENTS OF VONAGE HOLDINGS CORP.

I. INTRODUCTION

Vonage Holdings Corp. ("Vonage"), by undersigned counsel, respectfully submits these comments in the above-referenced proceeding pursuant to the Commission's August 29, 2003, Order[1] establishing a Declaratory Proceeding in response to the ILECs' Petition for Declaratory Ruling ("Petition") regarding the classification of Internet Protocol ("IP") telephony.[2]

II. VONAGE DIGITAL VOICE[SM] SERVICE

Vonage provides a form of Voice Over Internet Protocol ("VoIP") service, enabling customers with broadband Internet connections and specialized Customer Premises Equipment ("CPE") to communicate without using a telephone line. Vonage's service permits intercommunication between the incompatible protocols used on the Internet and on the Public Switched Telephone Network ("PSTN").

Vonage's Digital Voice[SM] service is an innovative Internet offering that, like e-mail, instant messaging, Internet conferencing, and other as yet undreamed of services, permits customers to communicate over the Internet. Although it resembles traditional telephone service in some respects, it has crucial technical and functional differences.

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[1] *Petition for a Declaratory Order regarding classification of IP Telephony Service*, Order Establishing Declaratory Proceeding, Docket No. 29016 (rel. Aug. 29, 2003).

[2] *Petition for Declaratory Relief Regarding the Classification of Phone-to-Phone IP Telephony Service*, Petition, Docket No. 29016 (filed Jul. 30, 2003) ("*Petition*").

First, in contrast to some other services that rely on IP transmission, Vonage customers *cannot* access Digital Voice[SM] service by "dialing in" over the PSTN. Vonage customers can *only* access the service over a high-speed Internet connection provided by a third-party telecommunications carrier, satellite or cable company. While there are various categories of VoIP services and numerous ways to provision it, Vonage's service always involves the Internet in its provision of VoIP, and never provides a connection exclusively between stations on the PSTN.

Vonage's service does provide an interface to the PSTN, but the PSTN is employed at most for one end of the call. For example, if a Vonage customer places a call to a non-Vonage customer, the call is routed over the Internet to the Vonage server, which then routes the call to the media gateway where it is converted into a format compatible with the PSTN, and then a call is placed via a third-party carrier to terminate the call over the PSTN.[3] Vonage accomplishes this through its contractual arrangements with telecommunications carriers. When calls are terminated through the PSTN, regulated telecommunications carriers provide call termination services for Vonage. Similarly, when a PSTN user calls a Vonage customer, the call is routed over the telephone network to a carrier from which Vonage purchases local telephone service; then that carrier delivers the call to the Vonage media gateway, which in turn routes digital packets over the Internet to the Vonage customer.

When a Vonage customer places a call to another Vonage customer, the call is not transmitted over the PSTN at all; rather, the call travels from the originating caller's broadband connection to the Vonage server, and then is routed via the Internet to the broadband Internet connection of the called Vonage customer. In such instances, the transmission is not converted to a TDM signal, and instead the Vonage server routes a new set of IP packets to the second user.

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[3] In most cases, this routing will take place over the "public Internet." Typically, a broadband subscriber will have a dedicated facility (cable or DSL circuit) connecting its premises to an access node operated by its service provider. That service provider will typically have dedicated facilities connecting its access node to a router (or multiple routers) operated by an Internet "backbone" network. From there, packets may be transmitted over any available backbone facilities (*i.e.*, the "public Internet") to a router designated by the Internet backbone provider from which Vonage purchases Internet transport. Only at that point does the transmission enter a facility that is dedicated to Vonage's use.

Since Vonage-to-Vonage "calls" never travel over the PSTN, such communications constitute purely "computer-to-computer" communications as discussed by the FCC in its *Report to Congress*.[4]

Further, because the Vonage service is accessed over the Internet, it can be used anywhere a broadband Internet connection is available. Thus, Vonage's customers may use their service in any State, or virtually anywhere in the world so long as they have access to a broadband Internet connection.[5] The physical location of users on the Internet cannot be accurately determined, as a technical matter, so it is impossible for Vonage to identify the point of origin or termination of a customer's transmission.

Second, to use Vonage's service, customers must possess special CPE, namely, a computer. The customer, not Vonage, owns the hardware needed to access Vonage's service. Vonage customers must subscribe to a broadband Internet access service, and then install compatible computer equipment that encodes audio signals as digital packets (or vice versa) and transmits and receives those packets over an Ethernet connection.[6] Most Vonage customers use a specialized computer called a Multimedia Terminal Adapter ("MTA"), which contains a digital signal processing unit that performs digital-to-audio and audio-to-digital conversions, and has a standard telephone jack connection. Although a customer can connect conventional analog telephone sets to the MTA computer for use with Vonage's service, a conventional telephone will not work with Vonage's service unless it is connected to computer hardware or software that generates digital packets.

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[4] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, FCC 98-67 (rel. April 10, 1998) ("*Report to Congress*").

[5] In a recent article in *PC Magazine*, one Vonage customer describes how he used Vonage's service with a California telephone number while staying at a hotel in New York City. John C. Dvorak, "Free Phone Calls," *PC Magazine* vol. 22, no. 14 at 57 (August 19, 2003) (copy attached as Exhibit 1).

[6] In order to use Vonage's service through a DSL connection, a router is required. As a practical matter, most cable modem users probably also use routers, so that they can attach other devices (such as a personal computer) to the modem.

Once the Vonage customer has installed and configured their computer equipment and the requisite software, the customer can place and receive "calls" to anyone with a telephone number (including other Vonage customers) by establishing a connection over the Internet to a Vonage server. A typical Vonage user's equipment configuration is represented in the figure below:

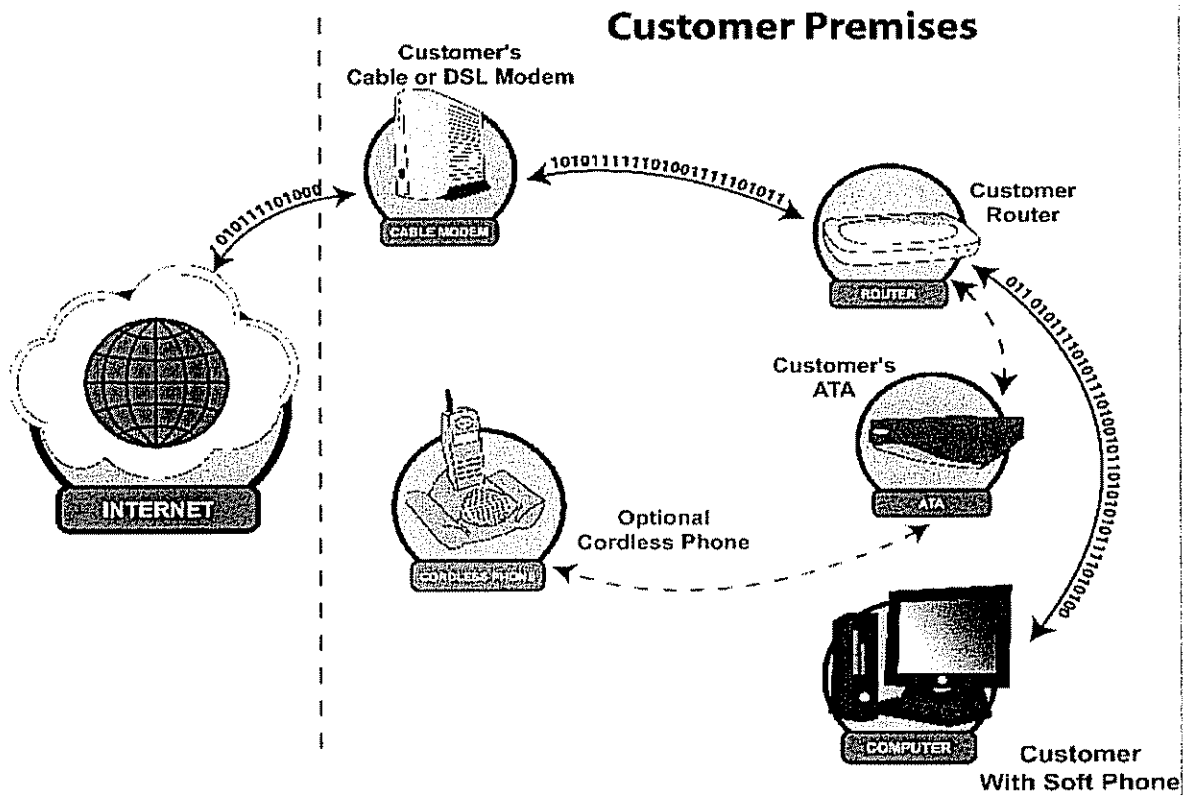

Figure I: Typical Vonage Configuration[7]

Packets sent by the customer's MTA or other computer are routed over the public Internet to Vonage's servers. It is there that Vonage's service begins. If the IP packets Vonage receives are destined to a station on the PSTN, Vonage converts the information received in the IP packets to a TDM digital signal, and obtains a connection to the PSTN station using the services of an unaffiliated common carrier. This is the third aspect that distinguishes Vonage's

[7] *See* http://www.vonage.com/learn_howitworks.php (visited Oct. 28, 2003). The "ATA" in the diagram references a particular brand name for an MTA computer device.

service from telecommunications services: Vonage performs a net protocol conversion from IP to TDM on Vonage to PSTN communications and from TDM to IP on PSTN to Vonage communications.[8]

Fourth, Vonage is an end user of telecommunications services. Vonage purchases local telephone service from carriers in 93 metropolitan areas in 32 states nationwide to enable access to its network from the PSTN, and also purchases service from interexchange carriers for termination of traffic from its network to the PSTN. When Vonage purchases local exchange service, it is assigned telephone numbers (like any other end-user), which it uses in providing its information service to its customers. Because Vonage customers may receive calls from users on the PSTN, Vonage associates each of its customers with one or more telephone numbers. The telephone number associated with the Vonage customer is not tied to the customer's physical location. Rather, the telephone number is mapped to the digital signal processor contained in the customer's computer, enabling Vonage to identify and serve that customer over any Internet connection.

III. VONAGE IS NOT A "TRANSPORTATION COMPANY" AS DEFINED BY ALABAMA CODE SECTION 37-2-1

The Commission is seeking comment on whether a company providing VoIP services meets the definition of "transportation company" for purposes of Section 37-2-1 of the Alabama Code. VoIP itself is a technology that can be used to provide a variety of different services, and Vonage is not sufficiently familiar with the activities of other companies to comment on the potential regulation of any service other than its own. For the reasons set forth below, Vonage's

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[8] Modern telephone networks rarely use analog transmission except on all or part of the local loop connection between a "plain old telephone service" user and the central office. Typically, the user's communication is converted into a synchronous digital format ("Time Division Multiplexed" or TDM) at the switch line port, or at an intermediate digital loop carrier terminal. All intermediate switching and routing of the communication ordinarily occurs in the TDM digital format. Thus, Vonage does not perform any digital-to-analog conversions in its network, but only converts from asynchronous IP packets to TDM or vice versa.

provision of services using VoIP does not satisfy the definition of "transportation company" for purposes of Section 37-2-1 of the Alabama Code.

The statute provides, in relevant part, "[t]he term 'transportation company' shall mean and include every person not engaged solely in interstate commerce or business that now or may hereafter own, operate, lease, manage or control, as common carriers or for hire ... any telephone line." The term "telephone line" is left undefined by the statute. To date, neither the Commission nor the courts have had occasion to construe this term in the context of innovative applications delivered over the Internet. Every other service analyzed by the Commission and the Alabama courts has been provisioned using the traditional circuit-switched networks and would fit the 1996 Telecommunications Act's definition of a "telecommunications service." For example, in their Petition, the ILECs point to microwave frequencies and light waves transmitted over fiber optic strands.[9] These services are unlike the information service provided by Vonage which *always* involves both a customer's third-party provided broadband Internet connection and the packet-switched network of the Internet.

In their Petition, the ILECs argue that "the term 'telephone line' has never been restricted to apply solely to old copper lines, rather it has been broadly interpreted as incorporating the provision of voice telephone service over any type of medium, including microwave frequencies and light waves carried over fiber optic strands."[10] This is correct in a narrow sense; the statutory language has "never been restricted" because the precise question has never been presented before. However, the converse is also true: the term "telephone line" has never been interpreted to apply to broadband Internet facilities, or to particular applications delivered to users over those facilities. The ILECs' argument is too simplistic on its face. After all, the same section of the Alabama Code also includes the operator of a "telegraph line" as a transportation company. It is a very short step from the ILECs' argument about "voice telephone service" to conclude that

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[9] *See Petition*, at 3.

[10] *Id.*

any service that can transmit alphanumeric data in any format, over any technology, is a "telegraph line," and therefore that electronic mail, instant messaging, chat rooms, and World Wide Web sites all fall within this Commission's jurisdiction. The statute should not be interpreted to permit such absurd results.

Vonage's information service differs in important ways from traditional telephone or telecommunications services. Vonage does not own, operate, lease, manage or control a "telephone line" as that term is commonly understood. As explained above, Vonage does not provide or own the wires or computers that its subscribers use to connect to the Internet and to Vonage's service via the Internet. Those wires are provided by third parties and Vonage has no affiliation with those third parties, nor any control over those wires. Similarly, Vonage does not own, operate, lease, manage or control the "telephone lines" provided by third-party common carriers that give Vonage access to the PSTN. Nor does Vonage "resell" these telecommunications services. As a U.S. District Court recently found in a case involving precisely the same facts, Vonage *uses* these telecommunications services as an input in the information service it sells to customers.[11]

Although "telephone line" is not defined in statute, the root "telephone" implies that the line must necessarily involve a telephone. Vonage does not believe that the provision of an application service over the Internet, even one that involves the conversion of audio information, falls within the meaning of the term "telephone." In reality, Vonage customers do not always use a telephone when using Vonage's service and a telephone will not work with Vonage's service unless it is connected to a computer. While some Vonage customers may plug a telephone into their MTA to use Vonage's service, other Vonage customers do not use any traditional telephone CPE. Some use "native IP phones," which look like a telephone handset, but contains a digital signal processing unit in an integrated device—such a device can *only* be used

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[11] *Vonage Holdings Corp. v. Minnesota Pub. Utils. Comm'n*, Civil No. 03-5287(MJD/JGL), slip op. at 12 (D. Minn. Oct. 16, 2003) (hereinafter, "*Vonage v. Minn. PUC*").

with an Internet connection, as it is not compatible with the PSTN. Still other users may not use any telephone handsets at all, but configure their personal computer equipment so that the microphone and speakers attached to the computer are used as the audio input and output, using a software application on the computer to perform the digital-to-analog conversion. Vonage is also testing the compatibility of its service with Personal Digital Assistant (PDA) devices and WiFi-enabled phones. In short, Vonage does not care, nor know, whether its customers use traditional telephones.

In short, the Commission should reject the Petitioners' overly broad interpretation of a "telephone line." Rather, the Commission should find that Vonage is not properly classified as a transportation company under Alabama law.

IV. AS WITH THE INTERNET ITSELF, IT IS IMPOSSIBLE TO SEPARATE VONAGE'S SERVICE INTO INTERSTATE AND INTRASTATE COMPONENTS, SO THAT STATE REGULATION INHERENTLY CONFLICTS WITH FEDERAL LAW

Even if the Commission were to conclude that it currently lacked sufficient information to determine whether Vonage own, operates, manages, leases or controls a telephone line, or that the definition of a telephone line is so vague that it needs to be further developed through rule-making, it should still decline to take any action to regulate Vonage's service, due to Federal preemption of such regulation. State regulation of Vonage's service would be preempted because of the impossibility of separating the Internet, or any service offered over it, into intrastate and interstate components. This ground for preemption exists *regardless* of whether Vonage is considered a transportation company under State law, or whether (or how) it would be regulated under Federal law.

Because of the nature of the Internet, it is technically impossible to apply Alabama's statutes, rules and regulations, purportedly limited to intrastate "calls," without also affecting interstate components of Vonage's service. Indeed, by its very nature, the Internet is interstate if

not international in scope.[12] On traditional telephone networks, it is usually possible to determine the jurisdiction of traffic on a call-by-call basis, because the carrier (or, in the case of a reseller, the underlying facilities-based carrier) provides a physical connection to the end user, and therefore can determine where that user is located. On mobile wireless networks, determining jurisdiction is somewhat more difficult, but since the wireless carrier can track which cell site antenna is serving the customer's mobile unit, it can generally determine at least a reasonable approximation of the customer's location.

The Internet is different. It has been said that, "[o]n the Internet, nobody knows you're a dog,"[13] but it is also true that on the Internet, nobody knows where you are. The Internet has no system for determining the geographic location of users. As a result, Vonage has no way of accurately determining where a particular customer is located when the customer uses the service. Vonage identifies the digital signal processor in the customer's computer used to transmit and receive packets (so that it can verify that the user is indeed a customer), but since customers can easily plug devices such as the MTA computer into any Ethernet port connected to a broadband Internet connection, Vonage does not know where the device and its user are located at any given time. Therefore, it is technically impossible for Vonage to accurately determine whether a particular transmission by a customer is intrastate or interstate in nature.

Because the Internet-based nature of its service makes it impossible to distinguish intrastate from interstate communications, this Commission could not enforce state law requirements with respect to Vonage's intrastate services without also interfering impermissibly with Vonage's ability to provide interstate services over interstate communications facilities. Significantly, there is no "proxy" or "rule of thumb" this Commission could apply that could reliably separate intrastate from interstate transmissions traveling over the public Internet and completed after application of Vonage's service. While Vonage has not yet offered its information service

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[12] 47 U.S.C § 230(f)(1) defines the "Internet" as the "international computer network of both Federal and non-Federal interoperable packet switched data networks."

[13] P. Steiner, cartoon, *The New Yorker*, vol. 69, no. 20, page 61 (July 5, 1993).

in any Alabama area codes, when and if it does, Vonage could not isolate "intrastate calls" by blocking customer transmissions originating from and terminating to telephone numbers with Alabama area codes, because some such numbers may actually be used by customers located in other states; and, conversely, some Vonage customers located in Alabama may be using Vonage's service right now via non-Alabama telephone numbers. Thus, if telephone numbers alone were used as a proxy for location (despite the fact that the phone numbers associated with Vonage customers are linked to their computers and not their physical location), then blocking of calls to and from New York telephone numbers would impede interstate communications. If Vonage tried to prevent its customers with Alabama mailing addresses from communicating with users of Alabama telephone numbers interstate communication again would be affected, because the Vonage customer might not actually be in Alabama at the time of using the service. Short of eliminating its service nationwide, Vonage could not prevent customers from other states from using the service while visiting Alabama in order to communicate with other persons physically located in Alabama.

It is clear that this Commission is preempted from taking actions that would affect interstate communications. "[Q]uestions concerning the duties, charges and liabilities of telegraph or telephone companies with respect to *interstate* communications service are to be governed solely by federal law and ... the states are precluded from acting in this area."[14] For example, if this Commission required Vonage to file tariffs, the company would be forced to apply those tariffs to interstate traffic due to the impossibility of identifying call jurisdiction. That would conflict with the FCC's detariffing policy for interexchange services.[15]

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[14] *Ivy Broadcasting Co. v. American Tel. & Tel. Co.*, 391 F.2d 486, 491 (2d Cir.1968) (emphasis added). *See also National Ass'n of Regulatory Util. Comm'rs v. FCC*, *supra* (affirming rules precluding states from regulating WATS service because "interstate communications ... are placed explicitly within the sphere of federal jurisdiction by the plain language of the Communications Act").

[15] *Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934*, Notice of Proposed Rulemaking, 11 FCC Rcd 7141 (1996), Report and Order, 11 FCC Rcd 9564 (1996); Second Report and Order, 11 FCC Rcd 20,730 (1996), Order on Reconsideration, 12 FCC Rcd 15,014 (1977); Second Order on Reconsideration and Erratum, 14 FCC Rcd 6004 (1999); Order, DA-002586 (Chief, CCB), rel. Nov. 17, 2000.

The FCC has preempted State regulation where, as a practical matter, it is impossible to separate a jurisdictionally mixed service into interstate and intrastate components.[16] For example, the FCC has asserted jurisdiction over dedicated private lines carrying jurisdictionally mixed traffic (except where the interstate use is *de minimis)*, because of the practical impossibility of measuring and billing separately for the portion of the line carrying intrastate traffic.[17] Similarly, when the FCC granted GTE's request to tariff the DSL Internet transport service sold to ISPs such as AOL, the FCC found that Internet access is interstate telecommunications.[18] The FCC acknowledged that some of the transmissions passing over an Internet access line may be intrastate in nature, but that the interstate component was not *de minimis*.[19] The same inseverability doctrine results in preemption of any attempt to impose State regulation on Vonage's service here. Vonage has demonstrated that it is impossible to apply Alabama common carrier regulations solely to intrastate "calls." This Commission is therefore preempted to the extent necessary to prevent this impact on the Internet and interstate services.

V. VONAGE'S SERVICE IS AN "INFORMATION" SERVICE UNDER FEDERAL LAW

Besides the interstate nature of the service, State regulation would also be preempted because Vonage's service is an "information service" as defined in the Telecommunications Act of 1996. As the *Vonage v. Minn. PUC* decision determines, Federal law preempts State commissions from imposing common carrier regulation on the Internet, or on information services

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[16] *See, e.g., Promotion of Competitive Networks in Local Telecommunications Markets*, 15 FCC Rcd. 22983, ¶ 107 (2000) ("[b]ecause fixed wireless antennas are used in interstate and foreign communications and their use in such communications is inseverable from their intrastate use, regulation of such antennas that is reasonably necessary to advance the purposes of the Act falls within the Commission's authority"); *Rules and Policies Regarding Calling Number Identification Service -- Caller ID*, 10 FCC Rcd. 11700, ¶¶ 85-86 (1995) (California default line-blocking policy was preempted because it would preclude transmission of Caller ID numbers on interstate calls, and effect of the policy was inseverable).

[17] *MTS and WATS Market Structure*, 4 FCC Rcd. 5660, 5660-61, ¶¶ 6-9 & n.7 (1989); *see also Petition of New York Telephone Company*, 5 FCC Rcd. 1080 (1990).

[18] *See GTE Tel. Operating Cos. GTOC Transmittal No. 1148*, 13 FCC Rcd. 22466 (1998) ("*GTE DSL Order*").

[19] *GTE DSL Order*, ¶¶ 22, 25.

delivered over the Internet. Therefore, even assuming for the sake of argument that State law required regulation of Vonage's service, that requirement would be preempted.

A. Vonage Provides an Enhanced Service

While VoIP services have only recently come into existence, the FCC has left similar services unregulated for over two decades. The FCC established the distinction between "basic services" and "enhanced services" in the *Second Computer Inquiry*.[20] That decision defined "basic services" as "the common carrier offering of transmission capacity for the movement of information."[21] In general, a basic service transmits information generated by a customer from one point to another, without changing the content or format of the transmission. Thus, the "basic" service category was intended to define the transparent transmission capacity that makes up conventional communications service. Because the FCC considers "basic" services to be "wholly traditional common carrier activities," they are regulated under Title II of the Act.[22]

By contrast, the FCC defined unregulated "enhanced services" as:

> services, offered over common carrier transmission facilities used in interstate communications, which [1] employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; [2] provide the subscriber additional, different or restructured information; or [3] involve subscriber interaction with stored information.[23]

To determine whether a service meets the enhanced services definition, the FCC has traditionally acted on a *case-by-case basis*, applying each clause of the definition against the specific func-

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[20] *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, Final Decision, 77 FCC 2d 384 (1980) ("*Computer II*"), subsequent history omitted.

[21] *Id.* at 420.

[22] *Id.* at 435.

[23] 47 C.F.R. § 64.702(a).

tionalities of the service in question. The service is generally deemed "enhanced" if it meets the language of one of the three clauses, as interpreted by the FCC.[24]

Vonage's provision of VoIP services satisfies the FCC's definition of an enhanced service. Vonage's service changes the form of the information as sent and received by the user, by converting the asynchronous IP packets generated by the MTA into the synchronous TDMA format used by the public switched telephone network (and vice versa). As such, Vonage's provision of VoIP service "employ[s] computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information."[25] While a service must only meet one of the criteria set out above, Vonage's service also "provide[s] the subscriber additional, different or restructured information."[26]

While the functionality that Vonage provides is similar to that provided by traditional telephone companies, the manner in which Vonage provides its VoIP service is significantly different. In *Computer II*, the FCC recognized that communications and enhanced services could be similar.[27] However, the Commission still concluded that the technological differences between the services justified different regulatory treatment. The FCC reached this conclusion:

> We acknowledge, of course, the existence of a communications component. And we recognize that *some enhanced services may do some of the same things that regulated communications services did in the past*. On the other side, however, is the substantial data processing component in all these services.[28]

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[24] The basic/enhanced service dichotomy applies to both domestic and international services. *See GTE Telenet Comms. Corp.*, 91 FCC 2d 232 (1985).

[25] 47 C.F.R. § 64.702(a).

[26] *Id.*

[27] *See Computer II* at 433.

[28] *Id.* at 435 (emphasis added). The FCC also found in *Computer II* that it had "ancillary jurisdiction" to regulate enhanced services under the prefatory Title I of the 1934 Act for the purpose of "assuring a Nation-wide wire and radio communications service with adequate facilities at reasonable charges." However, the FCC declined to exercise this jurisdiction, finding that common carrier regulation of enhanced services is unwarranted.

Vonage's service performs a form of data processing that perhaps was not foreseen in 1980, but is now feasible due to advances in technology: it processes voice communications into digital data and routes them over data networks, allowing users to place and receive telephone calls without a telephone line, through their broadband Internet connection. Nonetheless, the FCC did foresee the fact that the boundary between traditional communications and data processing would be blurry, and the mere fact that two services "do some of the same things" does not mean they should be regulated similarly. Rather, *Computer II* makes clear that it is essential to examine the actual technological underpinning of the Vonage service to determine the appropriate level of regulation.

The Petitioners make a crucial mistake when they urge the Commission to ignore over twenty years of FCC precedent initially established in *Computer II*. The Petitioners argue that "[w]hile the details of where these connections and translations occur are somewhat complex and varied, they are performed in order to complete a voice call ...."[29]

Just as the Minnesota Public Utilities Commission did, Petitioners mistakenly argue that the "details" of how a service is delivered are unimportant. Rather, they suggest, any Vonage application that allows for voice communication should be classified as a common carrier "telecommunications service" under the 1996 Act. However, the Federal definitions plainly do not depend on whether the information being transmitted is "voice" or "data" or something else; they depend on whether the "form or content" of the information is changed.[30] Under these

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[29] *See Petition*, at 2.

[30] "The term telecommunications means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." 47 U.S.C. § 153(43). A "telecommunications service" is "the offering of telecommunications for a fee directly to the public...." 47 U.S.C. § 153(46). Likewise, a telecommunications carrier "means any provider of telecommunications services...." 47 U.S.C. § 153(44). "The term information service means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications...." 47 U.S.C. § 153(20).

definitions, Vonage offers an information service because it "processes" and "transforms" the information transmitted by its users.

Like any information service, of course, Vonage's VoIP service *uses* telecommunications to deliver information to its users, but Vonage does not *provide* telecommunications. In the *Report to Congress*, the FCC stated that "carrier regulation" should be "limit[ed] ... to those companies that provide the underlying transport."[31] Vonage customers use the telecommunications capabilities of their underlying broadband access providers and Vonage uses the telecommunications capabilities of the common carriers from which Vonage purchases services to connect its users to the PSTN. However, as the court found in *Vonage v. Minn. PUC*, Vonage does not itself provide telecommunications.[32]

Vonage, in short, provides an *application* over the Internet that is fundamentally inseparable from the enhanced nature of Internet access itself. Vonage users use the same Internet access connection for transmission of voice data as they do for browsing the Web, downloading MP3 files, sending and retrieving e-mail, and exchanging instant text messages. That connection cannot be "enhanced" for some packets and "basic" for others. As the FCC cautioned, "it would be incorrect to conclude that Internet access providers offer subscribers separate services ... that should be deemed to have separate legal status, so that, for example, we might deem electronic mail to be a 'telecommunications service,' and Web hosting to be an 'information service.'"[33] Rather,

> [t]he service that Internet access providers offer to members of the public is Internet access. That service gives users a variety of advanced capabilities. Users can exploit those capabilities through applications they install on their own computers. The Internet service provider often will not know which applications a user has installed or is using. Subscribers are able to run those applications,

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[31] *Report to Congress* at ¶ 95.

[32] *Vonage v. Minnesota PUC*, slip op. at 12.

[33] *Report to Congress* at ¶ 79.

> nonetheless, precisely because of the enhanced functionality that Internet access service gives them.[34]

The FCC's description of "applications" that end users "install on their own computers" to "exploit" the advanced "capabilities" of Internet access services describes Vonage's service exactly. Vonage does not provide the Internet connection and is not an ISP itself. The "host" ISP whose customers access Vonage through its facilities is no more aware of that fact than of any other web browsing its customers may do.

Further, the Petitioners' description of how VoIP services are provided is simply wrong when applied to Vonage's service offering. The Petitioners' assert that "[w]hile the details of where these connections and translations occur are somewhat complex and varied, they are performed in order to complete a voice call and *generally utilize a local exchange carriers' network to originate or terminate the call*."[35] As described above, when a Vonage customer calls another Vonage customer, the computer-to-computer IP telephony does not use the PSTN at all. Accordingly, in this scenario, Vonage's service does not "utilize a local exchange carriers' [*sic*] network to originate or terminate the call."

The Petitioners' also wrongly state that "[t]he IP Telephony Service provider typically connects to the originating and terminating local exchange carriers' networks at points of inter-connection like a traditional IXC."[36] Among other things, Vonage customers must have a broadband Internet connection in order to make use of the service. As described in greater detail above, Vonage customers, whether placing or receiving a call from the PSTN, always make use

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[34] *Id.* This determination is in accord with the finding in *Computer II* that basic and enhanced services could be similar:

> We acknowledge, of course, the existence of a communications component. And we recognize that some enhanced services may *do some of the same things* that regulated communications services did in the past. On the other side, however, is the substantial data processing component in all these services.

Computer II at ¶ 435 (emphasis added).

[35] *See Petition*, at 2 (emphasis added).

[36] *See Petition*, at 2.

of the Internet and do not "connect[] to the originating and terminating local exchange carriers' network at points of interconnection like a traditional IXC." Vonage's *use* of telecommunications services to provide an information service does not make it a telecommunications services provider.

B. Vonage's VoIP Service Performs a Net Protocol Conversion

As noted above, a service may be classified as enhanced if it alters either the content *or the format* of the customer's transmissions. Vonage does not modify the content of its customers' transmissions, but it does change the format of these transmissions to provide an interface between otherwise incompatible network protocols. The FCC has specifically held that such protocol conversion services are enhanced, as long as they perform a *net* protocol conversion.[37] The net conversion test examines the service on an end-to-end basis from the demarcation point at the premises of the originating caller to the demarcation point where the call will be terminated.[38]

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[37] *Communications Protocols under Section 64.702 of the Commission's Rules and Regulations*, Memorandum Opinion, Order, and Statement of Principles, 95 FCC 2d 584, 596 (1983) ("*Communications Protocols Decision*"). Services that result in no net protocol conversion to the end user continue to be classified as basic services. The FCC later summarized this conclusion to stand for the principle that the protocol conversion standard of 64.702(a) does not reach network processing in carrier's networks (setup, takedown and routing of calls or their sub-elements). *Waiver of Section 64.702 of the Commission's Rules*, Memorandum Opinion and Order, 100 FCC 2d 1057, 1071 (1985).

In its *Third Computer Inquiry*, the FCC restated three exceptions to the rule that protocol processing renders a service enhanced. First, the FCC limited the enhanced services definition to end-to-end communications between or among subscribers. In other words, communications between a subscriber and the network are not enhanced services. Second, protocol conversion required by the introduction of new technology does not qualify as an enhanced service. Thus where innovative "basic" network technology is introduced slowly to the network and conversion equipment is used to maintain compatibility with CPE, the protocol conversion does not render the service enhanced. Third, conversions taking place solely within the network facilitate basic service and are not enhanced. *Amendment of Sections 64.702 of the Commission's Rules and Regulations (Computer III), Phase II*, CC Docket No. 85-229, Report and Order, 2 FCC Rcd 3072, 3081-3082 (1987).

[38] FCC rules define the demarcation point as the point of demarcation and/or interconnection between the communications facilities of a provider of wireline telecommunications, and terminal equipment, protective apparatus or wiring at a subscriber's premises. 47 C.F.R. § 68.3. At least for purposes of the FCC's access charge rules, a call "terminates" at the demarcation point. 47 C.F.R. § 69.2(cc).

Vonage's VoIP service satisfies the FCC's net protocol conversion test. Vonage's service requires that the customer install computer equipment capable of sending and receiving IP packets on customer's premises. As a result, when a Vonage customer originates a telephone call, the customer's own equipment converts sound waves into digital IP data packets that travel over the Internet in an asynchronous mode. Vonage subscribers can also use their hardware to convert digital IP packets that travel over the Internet into sound waves when receiving calls. If the call is delivered over the PSTN, Vonage converts the IP packets generated by the customer's equipment into the TDM format used on the PSTN (and vice versa), and the call terminates at the distant end in an analog format, different from the format in which Vonage received it from its customer. Thus, Vonage's service performs a net protocol conversion as defined by the FCC.

C. Vonage's Service is an "Information Service" Pursuant to the Telecommunications Act of 1996

The 1996 Act defines "telecommunications service" as "the offering of telecommunications for a fee directly to the public or to such classes of users as to be effectively available directly to the public regardless of the facilities used."[39] The term "telecommunications" is defined as "transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[40] The definition of "telecommunications" and "telecommunications service" can be contrasted with "information service" which is defined by the 1996 Act as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service."[41]

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[39] 47 U.S.C. § 153(46).

[40] 47 U.S.C. § 153(43).

[41] 47 U.S.C. § 153(20).

The FCC has determined that these new statutory definitions are ***mutually exclusive*** and parallel the definitions of "basic service" and "enhanced service" developed in the FCC's *Computer II* proceeding.[42] In this fashion, Congress intended to maintain a regime in which information service providers are not subject to regulation as common carriers merely because they provide their service "via telecommunications."[43] Thus, as set out in Section V.A. and V.B. above, Vonage's provision of service fits the definition of an "information service" under the 1996 Telecommunications Act.

D. Vonage's Provision of VoIP is Similar to Computer-to-Computer or Computer-to-Phone IP Telephony; Not Phone-to-Phone IP Telephony

The FCC expressly considered Vonage's service configuration in its *Report to Congress*[44] and found that computer-originated IP telephony, such as that offered by Vonage, "does not appear to be providing telecommunications services to its subscribers." As a consequence, services such as Vonage's must be classified as information services for regulatory purposes.

In the *Report to Congress*, the FCC analyzed two different kinds of IP telephony, one characterized as "phone-to-phone IP telephony," the other as "computer-to-computer IP telephony." While recognizing that different service configurations were possible, the Commission found that "phone-to-phone IP telephony" is characterized by calls originated over a "handset connected to the public switched network" that is terminated "to ... [an] ordinary telephone at the receiving end."[45] Although such phone-to-phone calls may be routed over an IP network – even over the public Internet – the FCC said they "lack[] the characteristics that would render them 'information services' within the meaning of the statute."[46] Because "phone-to-phone IP

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[42] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, FCC 98-67 (rel. April 10, 1998) ("*Report to Congress*").

[43] *Id.* at ¶ 39.

[44] *Id.* at ¶ 87.

[45] *Report to Congress* at ¶ 84.

[46] *Id.* at ¶ 89.

telephony" calls are both originated and terminated on the PSTN, in the same TDM protocol used on the PSTN, the FCC found that no *net* protocol conversion takes place.

The FCC contrasted phone-to-phone applications with "computer-to-computer IP telephony," which it characterized as follows:

> In the case of "computer-to-computer" IP telephony, individuals use software and hardware at their premises to place calls between two computers connected to the Internet. The IP telephony software is an application that the subscriber runs, using Internet access provided by its Internet service provider. The Internet service providers over whose networks the information passes may not even be aware that particular customers are using IP telephony software, because IP packets carrying voice communications are indistinguishable from other types of packets. As a general matter, Title II requirements apply only to the "provi[sion] " or "offering" of telecommunications. Without regard to whether "telecommunications" is taking place in the transmission of computer-to-computer IP telephony, the Internet service provider does not appear to be "provid[ing]" telecommunications to its subscribers.[47]

As noted previously, some of Vonage's customers place computer-to-computer "calls," and thus fall explicitly within the above analysis. And, as explained previously, the more frequent cases of PSTN-to-computer and computer-to-PSTN calls involve a net protocol conversion and clearly qualify as an information service.

The FCC summarized its analysis by crafting a four-part test for determining when IP telephony services might be classified as telecommunications services, rather than information services. Telecommunications services, it found, are characterized by the following: (1) the provider holds itself out as providing voice telephony or facsimile transmission service; (2) the provider does not require the customer to use CPE different from that CPE necessary to place an ordinary touch-tone call (or facsimile transmission) over the public switched telephone network; (3) the provider allows the customer to call telephone numbers assigned in accordance with the

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[47] *Id.* at ¶ 87.

North American Numbering Plan, and associated international agreements; and (4) the provider transmits customer information without net change in form or content.[48]

Since the regulatory status of VoIP services is a case of first impression in Alabama, there is no Commission case that applies the test set out in the FCC's *Report to Congress*. However, the *Vonage v. Minn. PUC* court applied this test and found that Vonage's service does not meet the four-part definition.[49] Although Vonage's service satisfies the first and third of these criteria (Vonage customers use the service as an alternative to placing conventional telephone calls, and can place "calls" to ordinary telephone numbers), it unequivocally does *not* satisfy the other two elements. Consumers must install special CPE (*i.e.*, computer equipment) that is incompatible with the PSTN, and the transmission *does* involve a net protocol conversion – from the IP format of the Internet to the TDM format of the PSTN.

The Petitioners not only misquote the *Report to Congress*, but also fail to provide the Commission with an accurate interpretation. The Petitioners claim that the second part of the test used by the FCC in defining phone-to-phone IP telephony is that the provider "does not require the use of a computer to transmit the message."[50] In fact, in the *Report to Congress*, the FCC stated "the provider does not require the customer to use CPE different from that CPE necessary to place an ordinary touch-tone call (or facsimile transmission) over the public switched telephone network"[51] While Vonage customers must use a computer to make use of its service, and this is certainly CPE different from that used to place calls over the PSTN, the FCC did not characterize phone-to-phone IP telephony in the manner described by the Petitioners.

The Petitioners' application of the FCC's test is plainly wrong as demonstrated both by the *Vonage v. Minn. PUC* decision, considered above, and by the FCC itself in the *Report to*

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[48] *Report to Congress* at ¶ 88.

[49] *Vonage v. Minnesota PUC*, slip op. at 13.

[50] *See Petition*, at 2.

[51] *See Report to Congress*, at ¶ 88.

Congress. After inaccurately setting out the test used by the FCC in the *Report to Congress*, the Petitioners contend that regardless of whether a broadband Internet connection is employed, or whether a VoIP user is required to use a personal computer to make use of the VoIP provider's service, the Commission should find that "the provision of such services on an intrastate basis is subject to the jurisdiction of the Commission and to the same rules and regulations that apply to the [Petitioners'] voice services."[52] However, such a finding would directly contradict the FCC's *Report to Congress* where the FCC explained that VoIP providers that offer computer-to-computer IP telephony did not appear to offer telecommunications services.[53]

VI. CONCLUSION

The provision of VoIP services is still developing and each provider's service offering must be carefully examined. Vonage recommends that the Commission closely and carefully examine the provision of VoIP by the specific provider on a case-by-case basis rather than attempt to adopt regulations that would apply generically to all VoIP providers. Vonage submits that the FCC's methodology used to distinguish between information/enhanced and basic/telecommunications services be used as a model by this Commission in determining whether a service constitutes the owning, operating, managing, leasing or controlling of a "telephone line" for purposes of Section 37-2-1. As the FCC has observed, VoIP services are deployed in many different forms. Any regulation that does not distinguish among the different types of VoIP services threatens both to arrest the development of these innovative services and impose an inappropriate regulatory structure for certain classes of VoIP services. As such, Vonage recommends that in interpreting Section 37-2-1, the Commission carefully consider what categories of VoIP services it should be interpreted to apply to, if any.

Further, Vonage's information service offering is jurisdictionally mixed and inseverable. Vonage respectfully submits that because federal law preempts State common carrier regulation

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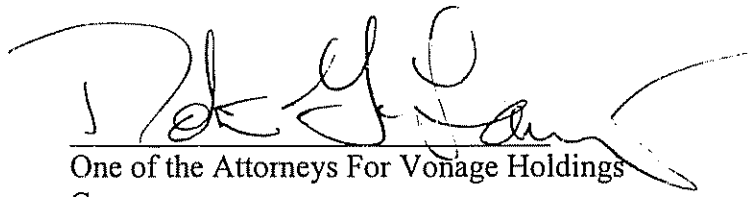
[52] *See Petition*, at 2-3.

[53] *See Report to Congress*, at ¶ 87.

of information and interstate services, the Commission may not subject Vonage to state rules and regulations applicable to transportation companies.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing on the following listed persons by placing a copy of same in the United States mail, postage prepaid and properly addressed on this 31st of October, 2003:

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